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## **The first species of *Leptusa* from Tsushima, Japan (Coleoptera: Staphylinidae: Aleocharinae)**

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**A b s t r a c t :** *Leptusa (Eospisalia) lackneri* nov.sp., the first representative of the genus from Tsushima and the twelfth *Leptusa* species from Japan, is described and illustrated.

**K e y w o r d s :** Coleoptera, Staphylinidae, Aleocharinae, *Leptusa*, Japan, Tsushima, taxonomy, new species.

### **Introduction**

The speciose aleocharine genus *Leptusa* KRAATZ 1856 is represented in the Palaearctic region by more than 350 species and numerous subspecies (ASSING 2009). Most of them are confined to the West Palaearctic. The highest diversity in the East Palaearctic has been recorded from the Himalaya, continental China, and Taiwan (ASSING 2010). The *Leptusa* fauna of Japan, in contrast, is relatively poor. According to a checklist by KISHIMOTO (2008), ten species – one of them represented by two subspecies – were known, eight of them from Honshu, one from Shikoku, and one from Kyushu. One species, however, was omitted in the checklist, *L. dissimulans* ASSING 2004 from Honshu, so that the Japanese *Leptusa* fauna previously included eleven species in five subgenera. The subgenus *Eospisalia* PACE 1982 was represented by four species (plus one subspecies), three of them from Honshu and one from Shikoku.

In staphylinid material kindly made available to me by Tomáš Lackner (currently Sapporo) a male of an undescribed apterous *Leptusa* species from Tsushima was discovered. It is the first representative of the genus to become known from this island, which is situated in the Korea Strait, approximately halfway between Kyushu and South Korea. It is separated from Kyushu by more than 80 km and from southern Honshu by more than 130 km.

### **Material and methods**

The holotype is deposited in the author's collection.

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss

Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used for the photographs.

Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra. The length of the median lobe of the aedeagus was measured from the apex of the ventral process to the base of the capsule.

***Leptusa (Eospisalia) lackneri* nov.sp.** (Figs 1-10)

**Type material:** Holotype ♂: "Japan - Tsushima, Tatera-yama, primary forest, 7.IV.2009, T. Lackner / Holotypus ♂ *Leptusa lackneri* sp.n. det. V. Assing 2010".

**Description:** Small species, body length 2.2 mm. Habitus as in Fig. 1. Coloration: body dark-reddish, with the abdominal segment VI and the anterior half of segment VII infusate; legs dark-yellowish; antennae reddish-yellow.

Head (Fig. 2) weakly transverse; punctuation dense and rather coarse; interstices with microsculpture (Fig. 3). Eyes approximately as long as postocular portion in dorsal view. Antenna (Fig. 4) gradually incrassate apically; antennomere IV weakly transverse, V-X of gradually increasing width and increasingly transverse; X approximately twice as wide as long.

Pronotum (Fig. 2) 1.3 times as broad as long and 1.2 times as wide as head, widest slightly before middle, distinctly tapering anteriad and posteriad; posterior angles obtusely marked; punctuation and microsculpture similar to those of head (Fig. 3).

Elytra short, approximately 0.65 times as long and about as wide as pronotum (Fig. 2); humeral angles weakly marked; punctuation more distinct than that of head and pronotum, somewhat granulose; interstices with microsculpture, but more glossy than those of head and pronotum (Fig. 5). Hind wings reduced.

Abdomen somewhat broader than elytra, widest at segment V; punctuation moderately dense and fine; interstices with shallow isodiametric microreticulation visible only at high magnification, glossy (more so than elytra); posterior margin of tergite VII with extremely fine, barely visible rudiment of a palisade fringe.

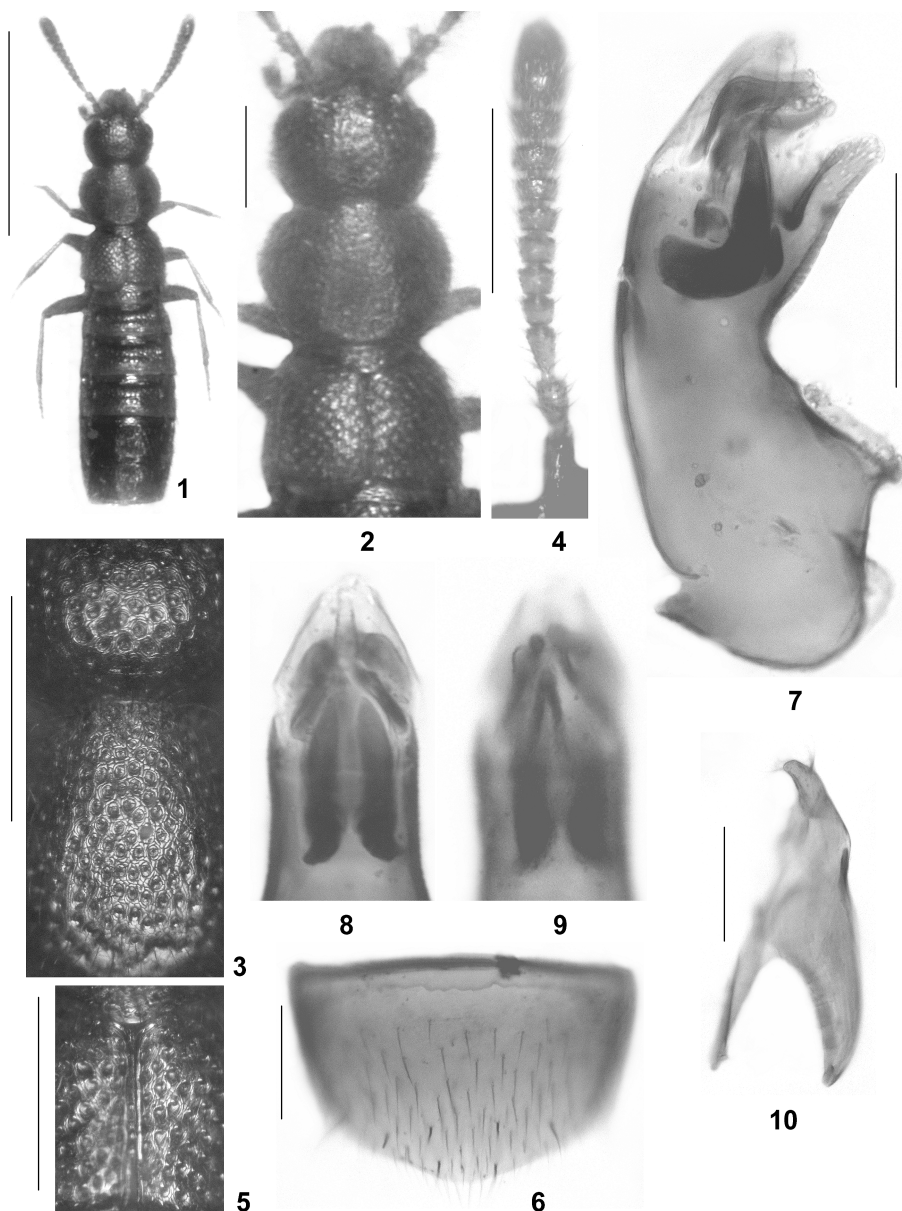
♂: sternite VII unmodified; tergite VIII without modifications, posterior margin weakly concave in the middle; sternite VIII posteriorly very obtusely angled in the middle (Fig. 6); median lobe of aedeagus (Figs 7-9) small, approximately 0.25 mm long; paramere with short apical lobe (Fig. 10).

♀: unknown.

**E t y m o l o g y :** The species is dedicated to Tomáš Lackner, specialist of Histeridae, who collected the holotype, also in gratitude for the continuous supply of Staphylinidae from Japan.

**C o m p a r a t i v e n o t e s :** The new species is distinguished from other Japanese representatives of the subgenus *Eospisalia* as follows:

in *L. taichii* KISHIMOTO 2008, the ventral process, the base of the capsule, and the apical internal structures of the aedeagus are of different shape, and the basal portion of the crista apicalis is more strongly produced;



**Figs 1-10:** *Leptusa lackneri* nov.sp. (holotype): (1) habitus; (2) forebody; (3) posterior median portion of head and median portion of pronotum; (4) antenna; (5) sutural portion of elytra; (6) male sternite VIII; (7) median lobe of aedeagus in lateral view; (8) internal structures of median lobe in ventral view; (9) apical portion of median lobe in ventral view; (10) paramere. Scale bars: 1: 1.0 mm; 2-5: 0.2 mm; 6-10: 0.1 mm.

the aedeagus of *L. kitazawai* (SAWADA 1970) is rather similar, but more slender and more broadly curved between crista apicalis and the base of the ventral process (lateral view), the ventral process is relatively longer and more slender, and the base of the capsule is of different shape; moreover, the body is somewhat broader and larger (material of *L. kitazawai* from several localities in Honshu examined);

in *L. ishizuchiensis* PACE 1982, the aedeagus has a long and conspicuous flagellum in the internal sac, the crista apicalis is much more pronounced, and the ventral process and the sclerotized internal structures are of completely different shape.

in *L. cornigera* ASSING 2002, the wings are longer than the pronotum, the hind wings are fully developed, the ventral process of the aedeagus is more strongly sinuate in lateral view, and the internal structures are of different shape.

For illustrations of the compared species see PACE (1989), KISHIMOTO (2008), and ASSING (2002).

**Distribution:** The holotype was collected in a primary forest in the Taterayama, a mountain in the south of Tsushima island, Japan.

### Zusammenfassung

*Leptusa (Eospisalia) lackneri* nov.sp., die erste Art der Gattung von Tsushima und die zwölfte Art in Japan, wird beschrieben und abgebildet.

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